WHAT IS CLAIMED IS:

1. A system comprising:

a first subsystem to produce a pattern of alternating lines and spaces on a photoresist, the lines having a substantially equal first width, the spaces being exposed to radiation; and

a second subsystem to radiate selected areas of the photoresist, the selected areas exposing portions of the lines to radiation, the selected areas having a second width, the second width being larger than the first width of the lines.

2. The system of Claim 1, wherein a pitch of a pattern produced by the second subsystem is greater than a pitch of the pattern of alternating lines and spaces.

3. The system of Claim 1, wherein the first subsystem comprises a beamsplitter.

4. The system of Claim 1, wherein the first subsystem comprises a diffraction grating.

5. The system of Claim 1, wherein the second subsystem comprises a mask-based optical lithography tool.

6. A method comprising:

forming a pattern of alternating lines and spaces on a photoresist, the lines having a first width, the spaces being exposed to radiation;

exposing a portion of at least one line to radiation to break continuity of grating pattern with a pitch being equal to or greater than a pitch of the grating pattern.

7. The method of Claim 6, wherein the radiation has a pre-determined wavelength, the grating pattern having a pitch equal to or larger than an exposure wavelength of an interference lithography apparatus divided by two.

8. The method of Claim 6, further comprising generating a print mask from Boolean substraction of (a) a final design layout for a given layer from (b) the pattern of alternating lines and spaces.

9. An apparatus comprising:

an interference exposure module to produce a first exposed array of lines on a photosensitive media; and

a second patterning module to produce a second exposure, the second exposure reducing regularity of the array and

breaking continuity of lines formed by the interference exposure module.

10. The apparatus of Claim 9, further comprising an alignment sensor to align the second exposure produced by the second patterning module to the first exposed array formed by the interference exposure module.

11. The apparatus of Claim 9, further comprising a common control system to enable the interference exposure module and second patterning module to provide first and second exposures to the photosensitive media.

12. The apparatus of Claim 9, where the interference exposure module comprises an interference lithography module, and the second patterning module comprises a projection optical lithography system, the projection optical lithography system comprising projection optics, a wafer stage, and a mask to reduce regularity in the array created by the interference exposure module.

13. The apparatus of Claim 9, where the interference exposure module comprises an interference lithography module, and the second patterning module comprises an imprint system

that comprises projection optics, a wafer stage, and a mask to reduce regularity in the array created by the interference exposure module.

14. The apparatus of Claim 9, where the interference exposure module comprises an interference lithography module, and the second patterning module comprises an electron projection system that comprises projection optics, a wafer stage, and a mask to reduce regularity in the array created by the interference exposure module.

15. The apparatus of Claim 9, where the interference exposure module comprises an interference lithography module, and the second patterning module comprises a maskless module to reduce regularity in the array created by the interference exposure module, projection optics and a wafer stage.

16. The apparatus of Claim 15, wherein the maskless module comprises an optical direct write module.

17. The apparatus of Claim 15, wherein the maskless module comprises an electron beam direct write module.

18. The apparatus of Claim 15, wherein the maskless module comprises an ion beam direct write module.

19. The apparatus of Claim 9, where the interference exposure module comprises an interference lithography module, and the second patterning module comprises an X-ray proximity projection system that contains mask necessary to reduce regularity in a pattern created by the interference exposure module, projection optics and a wafer stage.

20. The apparatus of Claim 9, where the interference exposure module comprises an interference lithography module, and the second patterning module comprises an imprint patterning that contains a mask to reduce regularity in a pattern created by the interference exposure module, alignment and illumination optics and a wafer stage.